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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,089

03/16/2006

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EXAMINER

SAFAIPOUR, BOBBAK

ART UNIT

PAPER NUMBER

2618

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,089	Applicant(s) LE NAOUR ET AL.	
	Examiner BOBBAK SAFAIPOUR	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,8,11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8,11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/02/09 has been entered.

Claims 2-4, 7, 9-10, and 12 have been cancelled.

New claim 13 has been added.

Claims 1, 5-6, 8, 11 and 13 are now pending in the present application.

Response to Arguments

Applicant respectfully asserts that neither Ammar nor Birleson, alone or in combination, discloses a configurable rejection filter which comprises: "a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element," as described in the independent claims.

The Examiner respectfully disagrees. As disclosed in the previous Final Office Action dated 11/24/2008, Birleson clearly discloses that mixer 103 receives inputs from amplifier 102 and local oscillator 104. A first IF signal is generated in mixer 103 and provided to first IF filter

Art Unit: 2618

109 (*read as configurable rejection filter*). Filter 109 is a band pass filter that provides coarse channel selection in tuner 10. As a matter of design choice, filter 109 may be constructed on the same integrated circuit substrate as mixers 103 and 110 or filter 109 may be a discrete off-chip device. Filter 109 selects a narrow band of channels or even a single channel from the television signals in the first IF signal. Following IF filter 109 (*read as configurable rejection filter*), mixer 110 mixes the first IF signal with a second local oscillator signal from local oscillator 111 to generate a second IF signal (*read as configurable rejection filter to operate as a substantially non-filtering element*). Mixer 110 may be an image rejection mixer, if necessary, to reject unwanted image signals. The characteristics of first IF filter 109 will determine whether mixer 110 must provide image rejection. If the image frequencies of the desired channel are adequately attenuated by first IF filter 109, then mixer 110 may be a standard mixer. (figure 1; paragraphs 50-52)

Furthermore, although Birleson discloses a configurable rejection filter comprising a guided structure, Birleson fails to specifically disclose a guided structure with a flat replaceable cover, as disclosed in the amended claims. However, Ammar discloses in figure 4, a housing assembly 62 that mounts the various boards for functional interoperation where a combination main housing and heat sink member 62a, housing mid-section 62b (as housing separator member), and cover 62c (*read as replaceable flat cover*) form major components of the housing assembly. These components can be formed from aluminum or other similar material. The frequency synthesizer board 52 is mounted against the opposing side of the housing mid-section 62b adjacent the cover 62c. The housing assembly 62 includes fasteners that are inserted into appropriate fastener locations 63 for holding the various sections together when assembled.

Art Unit: 2618

Transmit and receive waveguide ports 62d, 62e are positioned in the cover 62c (*read as replaceable flat cover*) for transmitting and receiving respective wireless signals. (Ammar: paragraph 40)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

Art Unit: 2618

made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5-6, 8, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ammar et al (US Patent Application Publication #2004/0203528 A1)** in view of **Birleson (US 2007/0182866 A1; hereinafter Birleson)**.

Consider **claim 1**, Ammar et al disclose outdoor unit (abstract, paragraphs 39-49, figure 2) of a reception terminal including a return channel, wherein the return channel comprises: a transposition means (read as mixer) that transposes a signal to be transmitted using the signal provided by the local oscillator (figure 2; paragraph 41; The signal is mixed at a mixer with the local oscillator), and a wideband filtering means that allows through signals whose frequency corresponds to the transposed signal independently from the frequency of the local oscillator (paragraph 41; a band pass filter eliminates certain spurious frequencies and signals by appropriate filtering) and a replaceable flat cover (figure 4; paragraph 40).

Ammar et al fail to disclose a local oscillator providing a signal with a frequency that can be selected from at least two frequencies and a configurable rejection filter depending on the frequency selected for the local oscillator, wherein the configurable rejection filter comprises a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element.

In related art, Birleson discloses a local oscillator providing a signal with a frequency that can be selected from at least two frequencies (figure 1, local oscillators 104 and 111; paragraph 53) and a configurable rejection filter depending on the frequency selected for the local oscillator (paragraphs 51-52; read as filter 109) wherein the configurable rejection filter comprises a guided structure with a replaceable cover, wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element (figure 1; paragraphs 50-52; Following IF filter 109 (read as configurable rejection filter), mixer 110 mixes the first IF signal with a second local oscillator signal from local oscillator 111 to generate a second IF signal (read as configurable rejection filter to operate as a substantially non-filtering element)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Birleson into the teachings of Ammar et al so that the local oscillator frequencies are selected so that the picture carrier of a particular channel in the RF signal will appear at 45.75 MHz in the second IF signal, although it is not limited to specific IF or LO frequencies.

Consider **claim 11**, Ammar et al disclose outdoor unit (abstract, paragraphs 39-49, figure 2) of a reception terminal including a return channel, wherein the return channel comprises: a transposition means (read as mixer) that transposes a signal to be transmitted using the signal provided by the local oscillator (figure 2; paragraph 41; The signal is mixed at a mixer with the

Art Unit: 2618

local oscillator), and a wideband filtering means that passes the signal from said transposition means resulting from selection of any of said at least two local oscillator frequencies (paragraph 41; a band pass filter eliminates certain spurious frequencies and signals by appropriate filtering) and a replaceable flat cover (figure 4; paragraph 40).

Ammar et al fail to disclose a local oscillator providing a signal with a frequency that can be selected from at least two local oscillator frequencies and a configurable rejection filter for rejecting a leak of transposition frequency for at least one of said at least two local oscillator frequencies, wherein the configurable rejection filter is configured through placement of a cover on a waveguide wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element.

In related art, Birleson discloses a local oscillator providing a signal with a frequency that can be selected from at least two frequencies (figure 1, local oscillators 104 and 111; paragraph 53) and a configurable rejection filter for rejecting a leak of transposition frequency for at least one of said at least two local oscillator frequencies (paragraphs 16-17 and 51-52; read as filter 109) wherein the configurable rejection filter is configured through placement of a cover on a waveguide wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element (figure 1; paragraphs 50-52; Following IF filter 109 (read as configurable rejection filter), mixer 110 mixes

Art Unit: 2618

the first IF signal with a second local oscillator signal from local oscillator 111 to generate a second IF signal (read as configurable rejection filter to operate as a substantially non-filtering element)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Birleson into the teachings of Ammar et al so that the local oscillator frequencies are selected so that the picture carrier of a particular channel in the RF signal will appear at 45.75 MHz in the second IF signal, although it is not limited to specific IF or LO frequencies.

Consider **claim 13**, Ammar et al disclose outdoor unit (abstract, paragraphs 39-49, figure 2) of a reception terminal including a return channel, wherein the return channel comprises: a transposition means (read as mixer) that transposes a signal to be transmitted using the signal provided by the local oscillator (figure 2; paragraph 41; The signal is mixed at a mixer with the local oscillator), and a wideband filtering means that passes the signal from said transposition means resulting from selection of any of said at least two local oscillator frequencies (paragraph 41; a band pass filter eliminates certain spurious frequencies and signals by appropriate filtering) and a replaceable flat cover (figure 4; paragraph 40).

Ammar et al fail to disclose a local oscillator providing a signal with a frequency that can be selected from at least two local oscillator frequencies and a configurable rejection filter for rejecting a leak of transposition frequency for at least one of said at least two local oscillator frequencies, wherein the configurable rejection filter is configured through placement of a cover on a waveguide wherein said replaceable cover is either: a cover including cavities or slots,

Art Unit: 2618

which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element.

In related art, Birleson discloses a local oscillator providing a signal with a frequency that can be selected from at least two frequencies (figure 1, local oscillators 104 and 111; paragraph 53) and a configurable rejection filter for rejecting a leak of transposition frequency for at least one of said at least two local oscillator frequencies (paragraphs 16-17 and 51-52; read as filter 109) wherein the configurable rejection filter is configured through placement of a cover on a waveguide wherein said replaceable cover is either: a cover including cavities or slots, which configures said configurable rejection filter into a band rejection filter that rejects a bandwidth corresponding to a leak of the transposition frequency, or a flat cover, which causes the configurable rejection filter to operate as a substantially non-filtering element (figure 1; paragraphs 50-52; Following IF filter 109 (read as configurable rejection filter), mixer 110 mixes the first IF signal with a second local oscillator signal from local oscillator 111 to generate a second IF signal (read as configurable rejection filter to operate as a substantially non-filtering element)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Birleson into the teachings of Ammar et al so that the local oscillator frequencies are selected so that the picture carrier of a particular channel in the RF signal will appear at 45.75 MHz in the second IF signal, although it is not limited to specific IF or LO frequencies.

Art Unit: 2618

Consider **claim 5**, and **as applied to claim 1 above**, Ammar et al, as modified by Birleson, disclose the claimed invention wherein the local oscillator comprises means for selecting the oscillation frequency. (Birleson: figure 1; paragraph 53)

Consider **claim 6**, and **as applied to claim 5 above**, Ammar et al, as modified by Birleson et al, disclose the claimed invention wherein the means for selecting the oscillation frequency is either a manual switch or a command from an indoor unit or terminal. (Birleson: figure 1; paragraph 53)

Consider **claim 8**, and **as applied to claim 7 above**, Ammar et al, as modified by Birleson et al, disclose the claimed invention wherein the cover comprises one of a flat cover, or a cover including slot-coupled resonant cavities (Ammar et al: paragraphs 40 and 90) such that said cover transforms the configurable rejection filter into a band rejection filter for rejecting a bandwidth corresponding to a leak of the transposition frequency in the wideband (Birleson: paragraphs 16-17).

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Art Unit: 2618

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipoor whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Bobbak Safaipoor/

Examiner, Art Unit 2618

March 26, 2009

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618